LARGE GROUNDWATER WITHDRAWAL PERMIT
ELECTRONIC DATA REPORTING GUIDELINES
March 21, 2008

The following table is an example of the electronic data reporting file used to report water level-related data from field measurements or automated recording devices. The file entitled "LGWP_Electronic_Data_Reporting_File_Template.xls" is a spreadsheet in Microsoft Excel file format. The reporting file is provided in MS Excel spreadsheet format for your convenience only; however, using it is not a requirement. If data is submitted in a spreadsheet format, however, all data should be contained in one worksheet and not split between multiple worksheets. If a different product is used, then it must contain the same column header names shown below and be submitted as a "text" file with either comma- or tab-delimited variables.

Table 1. Example electronic data reporting file.

Stano	Station_Alias	Date	Water_Level_Depth	Comment	Depth_Method
18015	PW-3	7/3/2007 10:30	38.020	Ref pt=TOC	ELECTRIC-TAPE MEASUREMENT
18015	PW-3	7/18/2007 14:30	40.150	Ref pt=TOC	ELECTRIC-TAPE MEASUREMENT
18015	PW-3	7/23/2007 18:30	43.120	Ref pt=TOC	ELECTRIC-TAPE MEASUREMENT
18120	Map112Lot10	7/15/2007 10:30	81.025	Ref pt=TOC	TRANSDUCER
18120	Map112Lot10	7/15/2007 14:30	81.035	Ref pt=TOC	TRANSDUCER
19030	SG-2	7/3/2007 9:00	3.220	Ref pt=TOS	NON-RECORDING GAGE
19030	SG-2	8/3/2007 9:00	4.340	Ref pt=TOS	NON-RECORDING GAGE

The following are descriptions and data types for the columns shown in Table No. 1 above.

Stano: (short for Station Number) This is a unique, fixed number assigned to each water level monitoring location included in a large groundwater withdrawal permit. This number is assigned by DES and *can not be changed or edited*. As shown in the example above, this number needs to appear in each row that contains a water level measurement for a given location, and must be present in all electronic submittals. Table No. 2 below includes an example of DES-assigned station numbers for monitoring points included in a permit that would be used in all future submittals.

Table 2. Example of station numbers and names assigned to a permit.

Stano	Station_Alias
18015	PW-3
18120	Map112Lot10
19030	SG-2

Station_Alias: This column is a text string that, essentially, is a name for each water level monitoring location included in a large groundwater withdrawal permit. Its length can not exceed 256 *characters*. The names listed under the Station_Alias column header in Table No. 2 above were chosen based on names used in a prior annual report (if available), or from the permit application submitted for the withdrawal. You have the option of changing/editing the Station_Alias names shown above to something that is more convenient; however, please ensure that regardless of the name given to a monitoring location, its data is always assigned to its proper station number (Stano). For instances where water level monitoring in private water supply wells is required by a permit, DES suggests that the name of the private well owner *not* be included in Station_Alias; rather, tax map and lot or other identifier (e.g., WRB # [State Well ID #]) be used.

Date: As shown in Table No. 1, this data column shall be in the format of DATE TIME, where DATE is in the form of mm/dd/yyyy, and TIME is in the form of hh:mm and referenced to a 24-hour clock or "military" time, i.e. do not include an "AM" or "PM." Note also that there shall be one space between the DATE and TIME entries.

Water_Level_Depth: Water_Level_Depth is the depth to water in feet when measured from the reference point (z-positive downward). Common reference points are top-of-casing, top-of-stake or top-of-PVC, etc. Please note that if water levels are recorded electronically using a pressure transducer that operates in a different "mode" (for example, it records height of water column above the device, or water level referenced to a site-specific datum), the water level data will need to be transformed to depth to water from reference point prior to reporting to DES.

The format of Water_Level_Depth is numeric and can be up to eight digits, with no more than three digits to the right of the decimal point. Note that the decimal point is not counted as a digit.

Please note that, if for some reason, water levels were not recorded at a monitoring location included in a permit due to access limitations, equipment malfunction, monitoring oversight, etc.; just describe and provide the reason for the absent data in the full-text portion of the annual report. ***Do Not*** input a non-numeric entry into this column like NM (not measured) or NR (not recorded) for absent data.

Comment: This column is a text column with space for up to 256 *characters*. Comments can relate to any location-specific information necessary to qualify the depth to water measurement, and are based largely on the professional judgment of the individual data collector. Common comments include identification of a location's reference point for measurements, observed condition of the monitoring point when measurement was collected, noted problems with recording device when measurement was recorded, etc.

Depth_Method: This column is a text column and the following four entries are the **only valid entries allowed**. These entries are listed in the worksheet titled "Depth_Method List" in the provided spreadsheet.

- TRANSDUCER: for a water level measurement recorded with an electronic pressure transducer commonly installed in a well or piezometer.
- ELECTRIC-TAPE MEASUREMENT: for a water level measurement recorded with an electric water level tape measure in a well or piezometer. Commonly these tape measures are equipped with a metallic probe or tip that contains a conductivity-bridge circuit that chimes or beeps when submerged in water.
- NON-RECORDING GAGE: for a water level measurement recorded off of a calibrated staff/stream gage or non-marked stake installed in a surface water body. This entry is not commonly applicable to wells.
- OTHER: for all other water level measurement methods. Please describe the method in the **Comment** column.